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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,408	02/14/2001	Yasunari Yoshitomi	52437/24	4751

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NEW YORK, NY 10004

EXAMINER

IP, SIKYIN

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/15/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/783,408

Applicant(s)

YOSHITOMI ET AL.

Examiner

Sikyin Ip

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 4-6 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 5190597 to Kobayashi et al or USP 4979996 to Kobayashi et al in view of USP 4054471 to Datta (PTO-1449) or USP 4318758 to Kuroki et al (PTO-1449) and further teaching of USP 4595426 to Iwayama et al.

4. The USP '597 and USP '996 reference(s) disclose(s) the features including the claimed grain oriented steel composition, magnetic flux density and watt loss properties, and method steps such as hot rolling, cold rolling, decarburizing, nitriding, and annealing with MgO separator. The features relied upon described above can be found in the reference(s) at: USP '597 (abstract and examples 1 and 2)

and USP '996 (in figures 1-3, tables, and examples 1-2). The difference between the reference(s) and the claims are as follows: USP '597 and USP '996 do not disclose the claimed final steel thickness, grain size, and shape factor. However, Datta (abstract) and Kuroki (col. 2, lines 41-44, example 3, figure 7, and claim 1) disclose(s) the claimed steel final thickness. Kuroki in col. 2, lines 41-44 discloses grain size are merely conventional with the processing steps as USP '597 and USP '996 in the same field of endeavor.

5. Iwayama in col. 7, line 13 to col. 8, line 11 disclose the SF less than 0.6 would reduce watt loss (col. 7, lines 46-54) and the crystal grains have a maximum 4° to 5° difference orientation at the grain boundaries for high-magnetic flux density grain-oriented silicon steel sheets. In Figure 2 and col. 4, line 64 to col. 5, line 2, Iwayama discloses a sheet thickness would affect the watt-loss. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to control the shape factor and grain orientation as taught by Iwayama in order to reduce watt-loss and improve magnetic flux density (See col. 7, line 60 to col. 8, line 7). In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

6. With respect to the coil inside diameter which is considered conventional to avoid stress and plastic deformation on the coiled strip.

*Response to Arguments*

7. Applicant's arguments filed July 28, 2003 and October 20, 2003 have been fully considered but they are not persuasive.
8. Applicants' argument in paragraph bridging pages 6-7 of the remarks filed on July 2003 is noted. But, there is not factual evidence to support applicants' position that 0.36 mm sheet thickness is critical.
9. Applicants' argument with respect to the thickness of the silicon steel sheets of cited references is noted. But, Kuroki and Datta disclose thickness not more than 0.5 mm which overlaps the claimed 0.36 to 1.0 mm.
10. Applicants argue that the silicon steel sheet of Datta contains B. But, the instant transitional expression "comprising" which is inclusive and fails to exclude unrecited ingredients even in major amounts. See *Ex parte Davis et al.* (POBA 1948) 80 USPQ 448 and *In re Bertsch* 132 F.2d 1014, 56 USPQ 379 (CCPA 1942).
11. In response to applicant's arguments in page 9 of the remarks filed on July 28, 2003 against the references individually is noted. But one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
12. Applicants' argument as set forth in paragraph bridging pages 10-11 of the

remarks filed on July 28, 2003 is noted. Assuming *arguendo* that the product of USP '426 is limited to thin silicon steel sheet; nevertheless, there is no evidence that the shape factor cannot be applied to thick silicon steel sheet. Thickness is not in the SF value expression (col. 7, lines 20-36).

13. Applicants argue that the claimed SF and  $\Delta\theta$  are new and novel. But, as is evinced by Iwayama in col. 7, line 12 to col. 8, line 11 that both are known in the art of cited references since 1986 to reduce watt-loss of silicon steel.

14. Applicants argue that the combination of cited references would not enable production of thick silicon steel sheet. But, applicants have not provide factual evidence to substantiate their position.

### *Conclusion*

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s) have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combination of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been meet by the rejections as set forth above.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121.

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
*Examiner Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1242. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (571)-272-1244.

The facsimile phone numbers are (703) 872-9310 (non-final Official Paper only) and (703) 872-9311 (after-final Official Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

  
\_\_\_\_\_  
SIKYIN IP  
PRIMARY EXAMINER  
ART UNIT 1742

S. Ip  
January 12, 2004